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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,667	03/23/2004	Daniel John Bricher	GCSD-1574 (51396)	1170
74701 7590 10/21/2008 ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST 255 S ORANGE AVENUE SUITE 1401 ORLANDO, FL 32801				
EXAMINER PAN, JOSEPH T				
ART UNIT 2435		PAPER NUMBER		
NOTIFICATION DATE 10/21/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

creganoa@addmg.com

# Office Action Summary

**Application No.**

10/806,667

**Applicant(s)**

BRICHER ET AL.

**Examiner**

JOSEPH PAN

**Art Unit**

2435

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 July 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-34 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 30 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/CI/CD)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Applicant's response filed on July 9, 2008 has been carefully considered. Claims 1-34 are pending.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-9, 12-19, 22-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dhir et al. (U.S. Patent No. 7,142,557 B2), hereinafter "Dhir", in view of Cheng (U.S. Pub. No. 2003/0221034 A1), and further in view of Allmond et al. (U.S. Patent No. 5,754,552), hereinafter "Allmond".

#### Referring to claim 1:

i. Dhir teaches:  
A cryptographic device comprising:  
a cryptographic module and a communications module (see figure 8, elements 321 'encryption engine', 301 'wlan transceiver' of Dhir);  
said cryptographic module comprising  
a user network interface (see figure 8, elements 325 'host bus interface', 326 'host device interface', of Dhir),

a cryptographic processor coupled to said user network interface (see figure 8, element 321 'encryption engine' of Dhir), and  
said communications module comprising  
a network interface (see figure 8, element 301 'wlan [i.e., wireless local area network] transceiver' of Dhir), and  
at least one logic device for cooperating with said cryptographic processor to determine a status of said communications module (see figure 1, element 120 'programmable logic device'; and column 3, lines 1-17 of Dhir).

However, Dhir does not specifically mention that the cryptographic module and the communication module are removably coupled. Neither does Dhir specifically mention a plurality of different connectors for coupling the cryptographic module to different network devices.

ii. Cheng teaches a add-on card for connecting to both wired and wireless networks, wherein Cheng discloses that "The network connection module can be detachable from the add-on card to allow for various network configurations." (see figure 4; and abstract, lines 9-11 of Cheng).

On the other hand, Allmond teaches a communication protocol detection system wherein Allmond discloses a plurality of different connectors for coupling the cryptographic module to different network devices (see figure 3; and column 10, line 61 - column 11, line 24 of Allmond).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Cheng into the method of Dhir to make the communication module removable from the cryptographic device.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Allmond into the method of Dhir to use a plurality of different connectors for coupling the cryptographic module to different network devices.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Cheng into the system of Dhir to make the communication module removable from the cryptographic device, because "The network connection

module can be detachable from the add-on card to allow for various network configurations." (see figure 4; and abstract, lines 9-11 of Cheng).

The ordinary skilled person would have been motivated to have applied the teaching of Allmond into the system of Dhir use a plurality of different connectors for coupling the cryptographic module to different network devices, because Dhir teaches a method for providing a multi-platform wireless local area network (see column 3, lines 1-2 of Dhir, emphasis added). Allmond teaches a networking device to automatically detecting and interconnecting network devices, each operating according to any one of a plurality of communication protocols (see column 1, lines 16-20 of Allmond, emphasis added). Therefore, Allmond's teaching could enhance Dhir's system.

Referring to claims 2, 14, 24, 28:

Dhir, Cheng, and Allmond teach the claimed subject matter: a cryptographic device (see claim 1 above). They further disclose a plurality of interchangeable communications modules each for communicating over a different communications media (see figure 4; and abstract, lines 9-11 of Cheng).

Referring to claims 3, 25, 29:

Dhir, Cheng, and Allmond teach the claimed subject matter: a cryptographic device (see claim 1 above). They further disclose the communication module comprising at least one of a type of communication module and an operating status (see figure 4, elements 'ANT2', 'PHY2'; and abstract, lines 6-11 of Cheng).

Referring to claims 4, 26:

Dhir, Cheng, and Allmond teach the claimed subject matter: a cryptographic device (see claim 1 above). They further disclose the logic device (see abstract, lines 1-8 of Dhir).

Referring to claims 5, 15, 31:

Dhir, Cheng, and Allmond teach the claimed subject matter: a cryptographic device (see claim 1 above). They further disclose the indicator (see column 8, lines 27-30 of Dhir).

Referring to claims 6, 16, 32:

Dhir, Cheng, and Allmond teach the claimed subject matter: a cryptographic device (see claim 1 above). They further disclose the complex programmable logic device (CPLD) (see column 1, lines 11-16 of Dhir).

Referring to claims 7, 17, 33:

Dhir, Cheng, and Allmond teach the claimed subject matter: a cryptographic device (see claim 1 above). They further disclose the wireless and wired communications (see figure 4, elements 'ANT2', 'PHY2'; and the abstract, lines 6-11 of Dhir).

Referring to claims 8, 18, 34:

Dhir, Cheng, and Allmond teach the claimed subject matter: a cryptographic device (see claim 1 above). They further disclose the Ethernet (see column 2, line 18 of Dhir).

Referring to claims 9, 19:

Dhir, Cheng, and Allmond teach the claimed subject matter: a cryptographic device (see claim 1 above). They further disclose the processor and the encryption circuit (see figure 8, elements 324 'baseband processor', 321 'encryption engine' of Dhir).

Referring to claims 12, 22:

Dhir, Cheng, and Allmond teach the claimed subject matter: a communications system (see claim 1 above). They further disclose the disabling (see column 3, line 35 of Allmond).

Referring to claim 13:

i. Dhir teaches:

A cryptographic device comprising:

a cryptographic module and a communications module (see figure 8, elements 321 'encryption engine', 301 'wlan transceiver' of Dhir);

said cryptographic module comprising

a user local area network interface (LAN) (see figure 8, elements 325 'host bus interface', 326 'host device interface'; and column 6, line 66-column 7, line 3 '...These are wireless local area network specifications.', of Dhir),

a cryptographic processor coupled to said user local area network interface (see figure 8, element 321 'encryption engine' of Dhir), and  
said communications module comprising  
a network LAN interface (see figure 8, element 301 'wlan transceiver' of Dhir), and

at least one logic device for cooperating with said cryptographic processor to determine at least one of a type of communications module and an operating status thereof, said at least one logic device also permitting said cryptographic processor to configure said network LAN interface (see figure 1, element 120 'programmable logic device'; and column 3, lines 1-17 of Dhir).

However, Dhir does not specifically mention that the cryptographic module and the communication module are removably coupled. Neither does Dhir specifically mention a plurality of different connectors for coupling the cryptographic module to different network devices.

ii. Cheng teaches an add-on card for connecting to both wired and wireless networks, wherein Cheng discloses that "The network connection module can be detachable from the add-on card to allow for various network configurations." (see figure 4; and abstract, lines 9-11 of Cheng).

On the other hand, Allmond teaches a communication protocol detection system wherein Allmond discloses a plurality of different connectors for coupling the cryptographic module to different network devices (see figure 3; and column 10, line 61 - column 11, line 24 of Allmond).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Cheng into the method of Dhir to make the communication module removable from the cryptographic device.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Allmond into the method of Dhir to use a plurality of different connectors for coupling the cryptographic module to different network devices.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Cheng into the system of Dhir to make the communication module removable from the cryptographic device, because "The network connection module can be detachable from the add-on card to allow for various network configurations." (see figure 4; and abstract, lines 9-11 of Cheng).

The ordinary skilled person would have been motivated to have applied the teaching of Allmond into the system of Dhir use a plurality of different connectors for coupling the cryptographic module to different network devices, because Dhir teaches a method for providing a multi-platform wireless local area network (see column 3, lines 1-2 of Dhir, emphasis added). Allmond teaches a networking device to automatically detecting and interconnecting network devices, each operating according to any one of a plurality of communication protocols (see column 1, lines 16-20 of Allmond, emphasis added). Therefore, Allmond's teaching could enhance Dhir's system.

Referring to claim 23:

i. Dhir teaches:

A communications method comprising:

coupling a cryptographic module to a network device (see figure 8, element 321 'encryption engine' of Dhir);

providing a communications module, a network LAN interface, and at least one logic device (see figure 8, element 301 'wlan [i.e., wireless local area network] transceiver', element 300 FPGA [i.e., field programmable gate array], of Dhir);

using the network LAN interface to communicate with a network (see column 6, line 66-column 7, line 3 of Dhir); and

causing the at least one logic device to cooperate with the cryptographic processor to determine a status of the communications module (see column 3, lines 1-17 of Dhir).

However, Dhir does not specifically mention that the cryptographic module and the communication module are removably coupled. Neither does Dhir



specifically mention a plurality of different connectors for coupling the cryptographic module to different network devices.

ii. Cheng teaches a add-on card for connecting to both wired and wireless networks, wherein Cheng discloses that "The network connection module can be detachable from the add-on card to allow for various network configurations." (see figure 4; and abstract, lines 9-11 of Cheng).

On the other hand, Allmond teaches a communication protocol detection system wherein Allmond discloses a plurality of different connectors for coupling the cryptographic module to different network devices (see figure 3; and column 10, line 61 - column 11, line 24 of Allmond).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Cheng into the method of Dhir to make the communication module removable from the cryptographic device.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Allmond into the method of Dhir to use a plurality of different connectors for coupling the cryptographic module to different network devices.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Cheng into the system of Dhir to make the communication module removable from the cryptographic device, because "The network connection module can be detachable from the add-on card to allow for various network configurations." (see figure 4; and abstract, lines 9-11 of Cheng).

The ordinary skilled person would have been motivated to have applied the teaching of Allmond into the system of Dhir use a plurality of different connectors for coupling the cryptographic module to different network devices, because Dhir teaches a method for providing a multi-platform wireless local area network (see column 3, lines 1-2 of Dhir, emphasis added). Allmond teaches a networking device to automatically detecting and interconnecting network devices, each operating according to any one of a plurality of communication protocols (see column 1, lines 16-20 of

Allmond, emphasis added). Therefore, Allmond's teaching could enhance Dhir's system.

Referring to claim 27:

i. Dhir teaches:

A communications system comprising:

a plurality of network devices coupled together to define a network, and a cryptographic device coupled to at least one of said network devices (see figure 9 of Dhir);

said cryptographic device comprising a cryptographic module coupled to said at least one network device, and a communications module (see figure 8, element 321 'encryption engine', element 301 'wlan transceiver' of Dhir);

said cryptographic module comprising a cryptographic processor coupled to said user network interface (see figure 8, element 321 'encryption engine', element 325 'host bus interface', element 326 'host device interface' of Dhir);

said communications module comprising a network communications interface, and at least one logic device for cooperating with said cryptographic processor to determine a status of said communications module (see figure 8, element 301 'transceiver', element 300 FPGA [i.e., field programmable gate array] of Dhir).

However, Dhir does not specifically mention that the cryptographic module and the communication module are removably coupled. Neither does Dhir specifically mention a plurality of different connectors for coupling the cryptographic module to different network devices.

ii. Cheng teaches a add-on card for connecting to both wired and wireless networks, wherein Cheng discloses that "The network connection module can be detachable from the add-on card to allow for various network configurations." (see figure 4; and abstract, lines 9-11 of Cheng).

On the other hand, Allmond teaches a communication protocol detection system wherein Allmond discloses a plurality of different connectors for

coupling the cryptographic module to different network devices (see figure 3; and column 10, line 61 - column 11, line 24 of Allmond).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Cheng into the method of Dhir to make the communication module removable from the cryptographic device.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Allmond into the method of Dhir to use a plurality of different connectors for coupling the cryptographic module to different network devices.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Cheng into the system of Dhir to make the communication module removable from the cryptographic device, because "The network connection module can be detachable from the add-on card to allow for various network configurations." (see figure 4; and abstract, lines 9-11 of Cheng).

The ordinary skilled person would have been motivated to have applied the teaching of Allmond into the system of Dhir use a plurality of different connectors for coupling the cryptographic module to different network devices, because Dhir teaches a method for providing a multi-platform wireless local area network (see column 3, lines 1-2 of Dhir, emphasis added). Allmond teaches a networking device to automatically detecting and interconnecting network devices, each operating according to any one of a plurality of communication protocols (see column 1, lines 16-20 of Allmond, emphasis added). Therefore, Allmond's teaching could enhance Dhir's system.

Referring to claim 30:

Dhir, Cheng, and Allmond teach the claimed subject matter: a communications system (see claim 27 above). They further disclose configuring the network communications (see column 1, lines 7-9 of Dhir).

4. Claims 10-11, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dhir et al. (U.S. Patent No. 7,142,557 B2) in view of Cheng (U.S. Pub. No. 2003/0221034 A1), further in view of Allmond et al. (U.S. Patent No. 5,754,552), and further in view of Klein (U.S. Patent No. 6,857,076 B1).

Referring to claims 10, 20:

i. Dhir, Cheng, and Allmond teach the claimed subject matter: a cryptographic device (see claim 1 above). Dhir further discloses the encryption engine (see figure 8, element 321 'encryption engine' of Dhir).

However, they do not specifically mention the data buffer.

ii. Klein teaches data security for digital data storage, wherein Klein discloses the data buffer (see column 5, lines 57-67 of Klein)

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Klein into the method of Dhir, Cheng, and Allmond to utilize the data buffer for encryption.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Klein into the system of Dhir, Cheng, and Allmond to utilize the data buffer for encryption, because data buffer can be used to store data during encryption process.

Referring to claims 11, 21:

Dhir, Cheng, Allmond, and Klein teach the claimed subject matter: a communications system (see claim 10 above). They further disclose the tampering (see column 7, line 44-45 of Klein).

***Response to Arguments***

5. Applicant's arguments, filed on July 9, 2008 have been fully considered but they are not persuasive.

Applicant argues:

"Indeed, Allmond et al. connects to a network device via a single type of connector, whether it is an RJ-45 connector or a fiber-optic connector, while the claimed invention, as recited in independent Claims I, 13, 23, and 27, for example, can connect using a plurality of different connectors." (see page 4, 2nd paragraph, Applicant's Arguments/Remarks, emphasis added)

Examiner maintains:

Allmond et al. discloses "For example, the connectors 322 could be RJ-45 jacks for receiving corresponding RJ-45 plugs for interfacing twisted-wire cables, where the repeater 302 includes the 10Base-T, 100Base-TX, 100Base-T4, the CDDI, as well as any other protocol supporting twisted-wire cabling. Alternatively, the connectors 322 could be fiber-optic connectors, where the repeater 302 supports 100Base-FX, FDDI, or any other protocol for using fiber-optic cabling. A hybrid system including different types of connectors 322 is within the scope of the present invention, but will not be described further for purposes of simplicity of explanation." (see column 11, line 58 - column 12, line 2, of Allmond et al., emphasis added).

Thus, Allmond et al. discloses using a plurality of different connectors, as recited in independent Claims I, 13, 23, and 27.

Applicant argues:

"Applicants further submit that the Examiner's combination of Dhir et al., Cheng, and Allmond et al. is improper, as a person having ordinary skill in the art would not turn to Cheng to combine with Dhir et al. and Allmond et al. in an attempt to arrive at the claimed invention. More particularly, Dhir et al. is directed to a programmable integrated circuit for a WLAN. The communication module and the cryptographic module are purposely on a single FPGA (300) chip, as illustrated in Dhir et al. Combining Dhir et al. with Cheng so that the communications module and the cryptographic module would be removably coupled would require splitting the communications and cryptographic modules from the single FPGA." (see page 4, last paragraph, Applicant's Arguments/Remarks, emphasis added)

Examiner maintains:

Dhir et al. disclose "Referring to FIG. 7, there is shown an exemplary embodiment of FPGA 300 program in accordance with one or more aspects of the present invention. In this embodiment, a separate transceiver 301 integrated circuit, namely not embedded in FPGA 300, is coupled to FPGA 300, as is program memory 312. In this embodiment, a direct interface between separate transceiver 301 and FPGA 300 may be employed for direct interaction between transceiver 301 and FPGA 300." (see column 7, lines 48-56 of Dhir et al., emphasis added).

Therefore, Dhir et al. disclose that the communication module [i.e., transceiver 301] is separate from the cryptographic module [i.e., in FPGA 300].

Thus, Combining Dhir et al. with Cheng so that the communications module and the cryptographic module would be removably coupled would not require splitting the communications and cryptographic modules from the single FPGA.

### ***Conclusion***

6. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Pan whose telephone number is 571-272-5987.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

/Joseph Pan/

Examiner, Art Unit 2435

October 6, 2008

/KimYen Vu/

Supervisory Patent Examiner, Art Unit 2435